

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 87-123

WASTE DISCHARGE REQUIREMENTS FOR:

TOSCO CORPORATION
AVON REFINERY
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. Tosco Corporation, Avon Refinery (hereinafter called the Discharger) owns and operates a petroleum refinery (hereinafter called the facility) with a crude throughput of 103,000 barrels per day. The Discharger purchased the facility from Phillips Petroleum in 1976. The Discharger filed a Report of Waste Discharge (ROWD) dated January 30, 1985.
2. The Discharger utilizes a number of on-site, active and inactive, waste management units for the treatment, storage, or disposal of wastes from refinery processes. The closure requirements of this Order are intended only to address the surface impoundment described in Finding 3. and shall not be interpreted as a waiver for the need for discharge requirements for the other waste management units. The Board will consider revision of this Order to establish discharge requirements for the other waste management units upon receipt of a complete ROWD for this units.
3. The Discharger utilized an on-site Class 1 surface impoundment for the disposal of a variety of hazardous wastes including leaded tank bottoms, API oil/water separator sludge, dissolved air flotation float, and slop oil emulsion solids. In addition, unleaded tank bottoms and miscellaneous oily wastes have been disposed of in the surface impoundment. The surface impoundment was constructed in the mid-1960's by Phillips Petroleum, the owners of the facility from 1966 until 1976. The surface impoundment consists of two units, the west impoundment and the east impoundment. Delivery of waste to the surface impoundment was terminated by the Discharger in December 1983.
4. The Discharger submitted a Part A application to the United States Environmental Protection Agency (EPA) for operation of the surface impoundment pursuant to the Resource Conservation and Recovery Act (RCRA) on November 19, 1980 and revised it on June 21, 1983. The Discharger has been operating the surface impoundment under an Interim Status Document (CAD000072751) issued by the California Department of Health Services on May 16, 1983, and is subject to the provisions of the California Health and Safety Code, including Chapter 6.5. of Division 20 and Chapter 30, Division 4, Title 22 of the California Administrative Code (CAC).

5. The Discharger's operation and closure of the surface impoundment is subject to the requirements of Title 23, Chapter 3, Subchapter 15 of the CAC (hereinafter called Subchapter 15).
6. The Discharger's operation and closure of the surface impoundment is subject to the requirements of the Toxic Pits Cleanup Act (TPCA) of 1984. The surface impoundment is located within one-half mile upgradient of a potential source of drinking water. The Discharger is required pursuant to TPCA to submit a hydrogeological assessment report (HAR) by January 1, 1988 and to cease discharge of liquid hazardous wastes or hazardous wastes containing free liquids to the surface impoundment by June 30, 1988. The Board will consider revision of this Order subsequent to an evaluation of the findings of the HAR.
7. The Discharger submitted a Closure Plan for the surface impoundment according to the provisions of Section 67316(b) of the Health and Safety Code on November 25, 1985, and amended it by submittals dated April 4, 1986, June 20, 1986, October 22, 1986, February 6, 1987, April 30, 1987, and June 1, 1987. The Closure Plan contains a description of how all free liquids will be eliminated from the surface impoundment and how the remaining nonliquid hazardous waste and contaminated subsoil will be stabilized and covered. The potential for release of waste constituents from the surface impoundment is also addressed. The Closure Plan does not include the removal of all materials beneath or adjacent to the surface impoundment that have been contaminated. The Discharger has already removed all free liquids and hazardous wastes containing free liquids from the surface impoundment. The Discharger has also completed tasks described in the October 22, 1986 submittal which include the construction of a clay cover layer over the hazardous wastes remaining in the surface impoundment. This clay cover will prevent rainwater from contacting the hazardous wastes and enables the Discharger to comply with the June 30, 1988 cease discharge prohibition of TPCA.
8. The Discharger submitted a report titled "Groundwater Assessment Program, Oily Waste Ponds" to the Board on September 22, 1986. The report describes hydrogeological conditions, groundwater monitoring well installations, and the sampling and analysis plan for determining the presence of hazardous waste constituents in groundwater under the surface impoundment. The Discharger has implemented the program and has subsequently submitted data reports to the Board on November 11, 1986, November 24, 1986, and June 10, 1987.
9. The surface impoundment is located in a former tidal flat which has been filled. The surficial soils consist of what has been described as a clayey silt, sandy silt, and silty sand fill material. The surficial fill zone is one to four feet thick. The water table is encountered in a 3 to 5 foot thick zone of petroleum coke fill below the surficial fill. Below the coke zone is a 3 to 5 foot thick peat layer. Beneath the peat layer is an 8 to 12 foot thick blue-green to grey-green clay unit. This clay unit is locally known as Bay Mud. Below the Bay Mud, a brackish water bearing zone is encountered in a 5 to 8 foot layer of silty fine sand, interbedded with sandy clays and silts.

10. Groundwater in the vicinity of the surface impoundment is currently being monitored by upgradient and background well MK-24 and downgradient wells MK-25, MK-26, MK-27, and MK-28, all screened in the coke water-bearing zone. From MK-24, located near the northwest corner of the surface impoundment, groundwater flow radiates in directions toward the east, southeast, and south.
11. The hazardous waste constituents arsenic, lead, benzene, toluene, xylene, and ethylbenzene have been detected in the downgradient wells in concentrations in excess of the concentrations detected in the upgradient well. Consequently, the Discharger must develop all data necessary to design and implement a complete corrective action program pursuant to Subchapter 15. The Discharger is currently performing verification monitoring according to the requirements of Subchapter 15, which include the determination of the rate and extent of migration of hazardous waste constituents in groundwater beneath the surface impoundment. After submittal of a corrective action program by the Discharger, the Board will consider revision of this Order to implement the corrective action program.
12. Pursuant to the Hazardous Solid Waste Amendments (HSWA) to RCRA, EPA will conduct a RCRA facility assessment (RFA) of the Discharger's facility in 1988. The purpose of the RFA is to identify all solid waste management units at the facility that have a potential for release of wastes to groundwater and surface water. Subsequent to the RFA, the Discharger is required, pursuant to the HSWA, to conduct a RCRA facility investigation (RFI) to determine whether the units cited in the RFA have released waste constituents to the environment, and if so, to what extent. All waste management units identified in the RFA which could have an impact on water quality will also be subject to the requirements of Subchapter 15.
13. The Discharger has conducted a series of hydrogeological investigations at the facility for the purpose of evaluating the quality and quantity of groundwater recharging to and discharging from the facility, evaluating the hydrogeological conditions at the facility, and establishing a facility groundwater monitoring well network. The Discharger has submitted the following reports to the Board as part of this ongoing investigation:

<u>Report Title</u>	<u>Submittal Date</u>
Soil and Groundwater Investigation, Avon Refinery	March 15, 1983
Regional and Site Hydrogeological Assessment	August 2, 1985
Task 3 Work Plan - Groundwater Sampling, Monitoring	
Well Installation, and Well Removal	September 30, 1985
Preliminary Groundwater Quality Assessment	September 30, 1985
Facility Groundwater Monitoring Network	June 6, 1986
Addendum Report - Facility Groundwater Monitoring	
Network	September 1, 1986
Groundwater Sampling and Water Level Elevation	
Measurements, February/March 1987	June 16, 1987

14. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986, and the State Water Resources Control Board approved it on May 21, 1987. This Order implements the water quality objectives stated in the Basin Plan.
15. The potential beneficial uses of the groundwater underlying the site are:
 - a. Municipal supply
 - b. Industrial process water and service supply
 - c. Agricultural supply
16. The Board notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
17. The Board, in a public hearing heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the Discharger and any other person(s) that currently or in the future own this land or operate this facility shall meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and shall comply with the following:

A. Prohibitions

1. The discharge of liquid hazardous wastes, hazardous wastes containing free liquids, or any other additional wastes to the surface impoundment is prohibited.
2. The discharge of wastes from the surface impoundment to surface or ground waters of the State is prohibited.

B. Specifications

1. The surface impoundment shall be closed in accordance with the closure plan described in Finding 7. of this Order.
2. The surface impoundment must be provided with at least two permanent monuments installed by a licensed land surveyor or a registered civil engineer, from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period.
3. A corrective action program in accordance with Section 2558 of Subchapter 15 shall be implemented for the surface impoundment.


C. Provisions

1. The Discharger shall comply with all Prohibitions, Specifications, and Provisions of this Order immediately upon its adoption by the Board except as noted below.

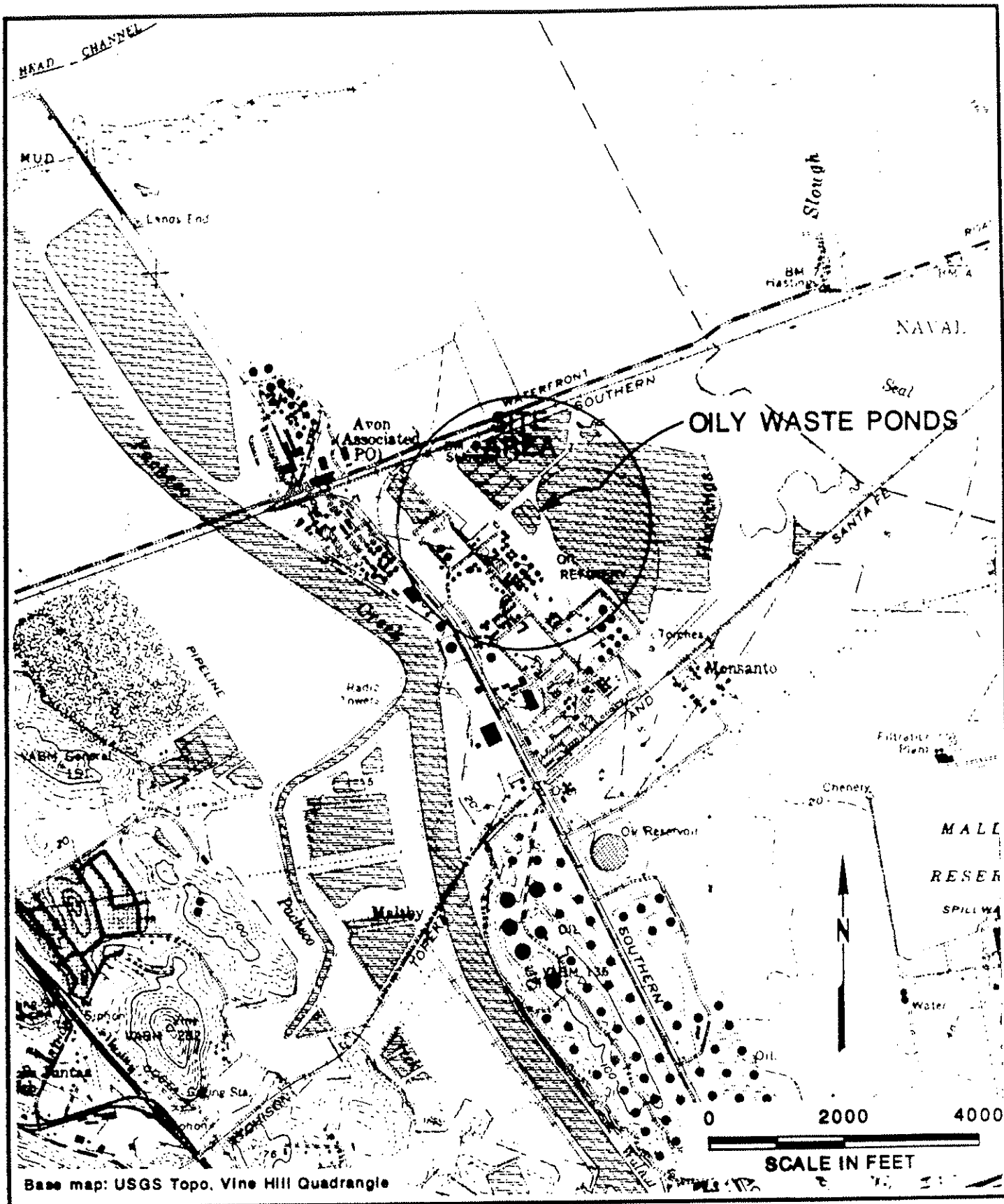
2. The Discharger shall complete closure as described in Specifications B.1. and B.2. by October 1, 1988.
3. The Discharger shall comply with Specification B.3. of this Order in accordance with the following tasks and time schedule:
 - a. Submit a hydrogeological assessment report (HAR) in accordance with Section 25208.8 of the Health and Safety Code satisfactory to the Executive Officer. The HAR shall include an assessment of the potential for release of hazardous waste constituents from the contaminated materials which remain beneath and adjacent to the surface impoundment.
REPORT DUE: January 1, 1988
 - b. Submit a report describing the extent and rate of migration of waste constituents in the groundwater released from the surface impoundment and a proposal for corrective action. This proposal shall include a detailed discussion of at least three clean-up strategies and the estimated cost and consequences of each one. The alternatives must range from complete removal of all waste constituents to no action and shall include the feasibility of removing contaminated materials which remain beneath and adjacent to the surface impoundment.
REPORT DUE: July 1, 1988
4. The Discharger shall submit a Report of Waste Discharge (ROWD) as outlined in Subchapter 15, Article 9. This report shall provide information on waste characteristics, geologic, hydrogeologic and climatologic characteristics, installed controls, and closure and post-closure monitoring and maintenance plans for each active and inactive waste management unit except for the surface impoundment described in Finding 3. of this Order.
REPORT DUE: January 1, 1988.
5. Reports pursuant to compliance with the prohibitions, specifications, or provisions of this Order shall be prepared under the supervision of a registered engineer or certified engineering geologist.
6. The Discharger shall remove and properly relocate any wastes which are discharged at this site in violation of these requirements.
7. The Discharger shall file with this Board a report of any material change or proposed change in the character, location, or quantity of this waste discharge. For the purpose of these requirements, this includes any proposed change in the boundaries, contours, or ownership of the disposal areas.
8. The Discharger shall maintain a copy of this Order at the site so as to be available at all times to site operating personnel.
9. The Board considers the property owner and site operator to have a continuing responsibility for correcting any problems within their reasonable control which arise in the future as a result of this waste discharge or water applied to this property during subsequent use of the land for other purposes.

10. The Discharger shall comply with the attached self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.
11. The Discharger shall allow the Board:
 - a. entry upon premises on which wastes are located or in which any required records are kept;
 - b. access to copy any records required to be kept under terms and conditions of this Order;
 - c. inspection of monitoring equipment or records; and
 - d. sampling of any discharge.
12. These requirements do not authorize commission of any act causing injury to the property of another or of the public, do not convey any property rights, do not remove liability under federal, state, or local laws, and do not authorize the discharge of waste without appropriate federal, state, or local permits, authorizations, or determinations.
13. This Order is subject to Board review and updating, as necessary, to comply with changing State and Federal laws, regulations, policies, or guidelines; changes in the Regional Board Basin Plan; or changes in the discharge characteristics, every five year or less from the effective date of this Order.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 16, 1987.


ROGER B. JAMES
Executive Officer

Attachments:
Location Map
Self-Monitoring Program



LOCATION MAP

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

TOSCO CORPORATION
AVON REFINERY
CONTRA COSTA COUNTY

ORDER NO. 87-123

CONSISTS OF

PART A

AND

PART B

TOSCO CORPORATION
AVON REFINERY

PART A

A. GENERAL

Reporting responsibilities of dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16. This Self-Monitoring Program is issued in accordance with Provision C.9. of Regional Board Order No. 87-123.

The principal purposes of a self-monitoring program by a discharger are: (1) to document compliance with Waste Discharge Requirements and prohibitions established by the Board, (2) to facilitate self-policing by the discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of "Test Methods for Evaluating Solid Waste" (EPA/SW-846), "Methods for Chemical Analysis of Water and Waste" (EPA-600/4-79-020), "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater" (EPA-600/4-82-057), and/or "Standard Methods for the Examination of Water and Wastewater."

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health Services. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.
2. Receiving waters(s) refers to any water which actually or potentially receives surface or groundwaters which pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the surface impoundment, the surface runoff from the surface impoundment, and standing water and drainage channels in the vicinity of the surface impoundment are considered the receiving waters.

3. Standard analysis and measurements refer to:

- a. pH
- b. Specific Conductance
- c. Temperature
- d. Total Organic Carbon
- e. Arsenic
- f. Chromium
- g. Lead
- h. Purgeable Aromatics (EPA Method 8020)
- i. Total Petroleum Hydrocarbons (EPA Method 3510/GC-MS)
- j. Groundwater elevation in feet (± 0.01 ft.) above Mean Sea Level, before and after purging
- k. Total well depth
- l. Volume of purged water

4. Standard observations refer to:

a. Receiving Waters

- 1) Discoloration and turbidity: description of color, source, and size of affected area.
- 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
- 3) Evidence of beneficial use: presence of water associated wildlife.
- 4) Flow rate.
- 5) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.

b. Perimeter of the waste management unit.

- 1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate (show affected area on a map).
- 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
- 3) Evidence of erosion and/or daylighted waste.

c. The waste management unit.

- 1) Evidence of ponded water at any point on the waste management unit.
- 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
- 3) Evidence of erosion and/or daylighted refuse.

d. Evidence or presence in groundwater monitoring wells of the following:

- 1) Floating and suspended materials: presence or absence
- 2) Discoloration and turbidity: description of color, source, and nature of material.
- 3) Algal or other unusual growth: presence or absence.

D. SCHEDULE OF SAMPLING, ANALYSIS, AND OBSERVATIONS

The Discharger is required to perform sampling, analysis, and observations according to the schedule specified in Part B, and the requirements of Article 5 of Subchapter 15.

E. RECORDS TO BE MAINTAINED

All records shall be maintained by the Discharger, and shall be retained through the post-closure period of the waste management unit. This period of retention shall be automatically extended during the course of any unresolved enforcement action regarding this facility or as requested by the Regional Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.
2. Date and time of sampling.
3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used. A reference to a specific section of a reference required in Part A Section B is satisfactory.
5. Calculation of results.
6. Results of analyses, and detection limits for each analysis.
7. Chain of custody forms for each sample.

F. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Written self-monitoring reports shall be filed each calendar quarter by the first day of the third month following the quarter. The reports shall contain:
 - a. Letter of Transmittal--A letter transmitting the essential points in each self-monitoring report shall accompany each report. Such a letter shall include a discussion of any significant findings and requirement violations found during the past quarter and actions taken or planned for correcting the violations. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last quarter this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

- b. Compliance evaluation summary of the chemical data obtained for that quarter. This summary shall contain:
- 1) A graphic description and map of the direction and elevation of groundwater flow and the piezometric surface under/around the waste management unit, based upon the past and present water level elevations and pertinent visual observations. The map shall include the dates on which displayed data was obtained.
 - 2) The method and time of water level measurement, the type of pump used for purging, pump placement in the well; method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature, conductivity and turbidity testing, well recovery time, volume of water purged , and method of disposing of the purge water.
 - 3) Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations. The chain of custody record.
- c. A summary of the status of the Corrective Action work performed during that quarter. This shall be a brief and concise summary of the work initiated and completed 1) as interim corrective action measures, and 2) to define the extent and rate of migration of waste constituents in the soil and groundwater at the site.
- d. A map or aerial photograph showing observation and monitoring station locations.
- e. A list of the standard observations made.
- f. All chemical analytical data gathered to date. This shall also include all the values from each replicate measurement, the laboratory achieved detection limit for each parameter, and the date and time of sampling and analysis of the sample.
- g. A list of the analytical methods used as specified by the laboratory performing the analysis.
- h. A table of groundwater level measurements. This shall include the measured depths to groundwater, and the groundwater elevation relative to mean sea level.
- i. Field logs for each groundwater well sampled. The information contained in these logs should include well number, date, depth to groundwater, method of purging, total volume of water

purged, method of disposal of purged water, time of purging, time of sampling, sample collection device, observations of the quality of the purge water and sample water (color, turbidity, odors, immiscible phases, etc.), and any problems encountered during sampling.

- j. Laboratory statements of results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board.
 - 1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods, are used the exact methodology must be submitted for review.
 - 2) In addition to the results of the analyses, laboratory quality control/quality assurance (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that is less than 80%; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.
- 2. A written annual report shall be filed each calendar year by March 1 covering the previous calendar year. This report shall contain:
 - a. Tabular and graphical summaries of the monitoring data obtained during the previous year.
 - b. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the Waste Discharge Requirements.
 - c. A map showing the waste management units, monitoring well locations, and ground and casing point measuring elevations.
 - d. A written summary of the groundwater analyses indicating any change in the quality of the groundwater.
- 3. A boring log shall be submitted for each sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These shall be submitted within 30 days after well installation and document the following:
 - a. For all monitoring wells established for this program continuous core samples must be taken in all borings, unless

multiple wells are to be constructed in the immediate vicinity, in which case only the deeper boring would need to be continuously sampled. Each boring log must include the name, registration number and signature of the supervising geologist, the name of the person actually logging the hole, the name of the drilling company, type of drilling method used, grain size distribution analysis, soil moisture content, blow count, sample recovery rate, initial and stabilized water levels, in-place permeability, and ground surface elevation. Soil and clay samples shall be retained for chemical analyses to determine if pollution or adsorption has occurred from pond seepage.

- b. For all monitoring wells established for this program, well construction details must include a sieve analysis of the formation in the zone to be screened and sand pack; the rationale for the selected slot size and sand pack; and the method used to place the sand pack, seal, and grout. Wells must be screened over the full length of the aquifer, unless doing so would cause further or cross-contamination. In such a case, individual wells would be required to provide coverage for the entire length of the aquifer. The sand pack cannot extend more than one foot above the screened interval. The well annulus must be sealed with bentonite concrete, and a surface concrete seal must be placed at the top of the well. All wells must be surveyed to a clearly marked common reference point.
4. A contingency report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written contingency report shall be filed with this Board within five days. This report shall contain the following information: 1) a map showing the location(s) of discharge, 2) approximate flow rate, 3) nature of effects; i.e. all pertinent observations and analyses, and 4) corrective measures underway or proposed.

TOSCO CORPORATION
AVON REFINERY

PART B

I. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. On-site Observations

<u>Station</u>	<u>Description</u>	<u>Observations</u>	<u>Frequency</u>
V-1 thru V-'n'	Located on the waste disposal area as delineated by a 500 foot grid network.	Standard observations for the waste management unit.	Bi-weekly, October 1 to May 1; Monthly, May 1 to October 1
P-1 thru P-'n' (perimeter)	Located at equidistant intervals not exceeding 500 feet around the perimeter of the disposal area.	Standard observations for the perimeter.	Bi-weekly, October 1 to May 1; Monthly, May 1 to October 1

A map showing visual and perimeter compliance points (V and P stations) shall be submitted by the Discharger in the quarterly monitoring report.

B. Seepage Monitoring

<u>Station</u>	<u>Description</u>	<u>Observation & Analysis</u>	<u>Frequency</u>
S-1 thru S-'n' (seepage)	At any point(s) at which seepage is found occurring from any unit.	Standard observations for the perimeter, and a grab sample for standard analysis.	Daily until remedial action is taken for the seepage and the seepage ceases.
CU-1 (upstream receiving waters)	Located in the sloughs and drainage ditches upstream of the seepage.	Standard observation for receiving waters and a grab sample for standard analysis.	Daily, during a seepage event.

<u>Station</u>	<u>Description</u>	<u>Observation & Analysis</u>	<u>Frequency</u>
CD-1 thru CD-'n' (down- stream receiving waters)	Located in the sloughs and drainage ditches 200 feet down- stream of the seepage.	Same as for receiving waters upstream.	Daily, during a seepage event.

A map showing seepage and receiving water monitoring points (S, CU, and CD stations) shall be submitted by the Discharger in the quarterly monitoring report.

C. Groundwater Monitoring

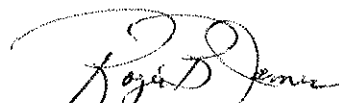
<u>Station</u>	<u>Observation & Analysis</u>	<u>Frequency</u>
Monitoring well numbers: MK-24, MK-25, MK-26, MK-27, and MK-28	Standard analysis	Once per quarter
	Purgeable Organics (EPA Method 8240) Base/Neutral and Acid Extractable Organics (EPA Method 8250)	Once per year

A map showing monitoring well locations shall be submitted by the Discharger in the quarterly monitoring report.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. 87-123.
2. Is effective on the date shown below.
3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer, or request from the Discharger.

SEPTEMBER 23, 1987
DATE ORDERED


ROGER B. JAMES
Executive Officer